

# Course : Implementing and Administering Cisco Solutions (CCNA) v2.2

Official course, exam preparation 200-301 CCNA

*Practical course - 5d - 35h00 - Ref. CRC*

*Price : 4040 € E.T.*



With this 5-day classroom and 3-day self-study course, you'll learn how to install, operate, configure and verify a basic IPv4 and IPv6 network. You'll be able to configure network components such as switches, routers and WLAN controllers, manage network equipment, and identify basic security threats. The course also covers the introduction of artificial intelligence (AI) and machine learning (ML) into network operations.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Understanding network components, the host-to-host model, TCP/IP, IPv4/IPv6 and subnetting
- ✓ Install and configure a basic Cisco switch or router
- ✓ Create and manage VLANs, trunks and inter-VLAN routing
- ✓ Implement static routing, OSPF and Layer 3 redundancy
- ✓ Traffic management with STP, RSTP, EtherChannel, ACLs and QoS
- ✓ Solve common IPv4 and dial-up network problems
- ✓ Configure IPv6, check connectivity and understand how it works
- ✓ Discover wireless networks, the role of WLCs, WANs and VPNs
- ✓ Apply basic security rules and protect network equipment
- ✓ Understanding virtualization, programmability, AI and network supervision

## Intended audience

Entry-level technicians: network engineers, network administrators, network support technicians and help desk technicians. CCNA certification candidates.

## Prerequisites

Basic computer skills, knowing how to use an operating system, surf the Internet and understand the basic principles of IP addresses.

## PARTICIPANTS

Entry-level technicians: network engineers, network administrators, network support technicians and help desk technicians. CCNA certification candidates.

## PREREQUISITES

Basic computer skills, knowing how to use an operating system, surf the Internet and understand the basic principles of IP addresses.

## TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

## ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

## Practical details

### Teaching methods

Training in French. Official course material in English. Training duration: 5 days in class and 3 days self-study.

## Course schedule

### 1 Official program

- Explore network functions.
- Introduction to the host-to-host communication model.
- Use Cisco IOS software.
- Introduction to local area networks (LANs).
- Explore the link layer of the TCP/IP model.
- Switch startup.
- Introduction to the Internet layer of the TCP/IP model, IPv4 addressing and subnets.
- Explain the transport and application layers of the TCP/IP model.
- Explore routing functions.
- Configure a Cisco router.
- Explore the package delivery process.
- Troubleshoot a simple network.
- Introduction to the basics of IPv6.
- Configure static routing.
- Implement VLANs and trunks.
- Route between VLANs.
- Introduction to OSPF.
- Build redundant switching topologies.
- Enhance redundant switching topologies with EtherChannel.
- Explain the basics of access control lists (ACLs).
- Activate Internet connectivity.
- Introduction to AI and ML in network operations.
- Introduction to system supervision.
- Manage Cisco equipment.
- Secure administrative access.
- Implement device hardening.
- Explore Layer 3 redundancy.
- Introduction to WAN technologies.
- Introduction to Quality of Service (QoS).
- Explain the basics of wireless.
- Introduction to architectures and virtualization.
- Explain software-defined networking (SDN).
- Introduction to network programmability.
- Examine the security threat landscape.
- Implement threat defense technologies.

### TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: [psh-accueil@orsys.fr](mailto:psh-accueil@orsys.fr) so that we can assess your request and its feasibility.

## 2 Official practical work

- Get to grips with the Cisco command line interface (CLI).
- Observe how a switch works.
- Perform basic switch configuration.
- Inspect TCP/IP applications.
- Configure an interface on a Cisco router.
- Configure and verify Layer 2 discovery protocols.
- Set default gateway.
- Explore packet transfer.
- Troubleshoot media and port problems on a switch.
- Troubleshoot port duplex problems.
- Configure basic IPv6 connectivity.
- Configure and verify static IPv4 routes.
- Configure static IPv6 routes.
- Configure VLANs and trunks.
- Configure inter-VLAN routing.
- Configure and verify single-area OSPF.
- Configure and check EtherChannel.
- Configure and verify IPv4 ACLs.
- Set up an IPv4 address assigned by the provider.
- Configure static NAT.
- Configure dynamic NAT and PAT.
- Configure and verify NTP.
- Create a backup of the Cisco IOS image.
- Update Cisco IOS image.
- Secure console and remote access.
- Enable and restrict remote access connectivity.
- Configure and verify port security.
- Connect to and supervise the wireless LAN controller (WLC).
- Set up an open wireless network.
- Define a RADIUS server and enable SNMP and Syslog.
- Configure a WLAN with WPA2-PSK.

### Options

**Certification : 340 € HT**

This course prepares you to take the 200-301 Cisco® Certified Network Associate (CCNA®) exam. By passing this exam, you will obtain CCNA certification.

[Comment passer votre examen ?](#)

### Dates and locations

#### REMOTE CLASS

2026 : 20 Apr., 22 June, 24 Aug., 26 Oct., 14 Dec.

#### PARIS LA DÉFENSE

2026 : 20 Apr., 22 June, 24 Aug., 26 Oct., 14 Dec.